



CITY OF HOPE NATIONAL MEDICAL CENTER

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DIVISION OF NEUROSCIENCES

March 6, 1974

Dr. R. Q. Blackwell
Department of Biochemistry
U. S. Naval Medical Research Unit No. 2
Taipei, Taiwan
Republic of China

Dear Dr. Blackwell:

I am working with a group of scientists here at City of Hope and within the American Chemical Society who are concerned over what may be a Defense Department interest in a particular aspect of human genetic polymorphisms.

As you may be aware, an article entitled "Ethnic Weapons," written by Carl A. Larson (Head of the Department of Human Genetics at the Institute of Genetics, University of Lund, Sweden), appeared in the journal Military Review in November, 1970. What the article suggests is that certain polymorphisms might serve as a basis for designing a new class of chemical warfare agents, ones that would possess a capability of incapacitating or killing a targeted "enemy" population to a greater extent than a pre-selected population of "friendly" forces. While we realize that the overwhelming proportion of known gene frequencies argue against the feasibility of such hypothetical chemical warfare agents, we are nevertheless concerned that these ideas have been discussed within military circles, and that the Department of Defense, via the Advanced Research Projects Agency, has been funding the large-scale screenings of polymorphisms in Asian populations carried out at NAMRU-2 on Taiwan.

Please understand that it is not my intent to imply that you may have any personal involvement in any aspect of chemical warfare. It is, however, my belief that the concept of ethnic weapons raises serious issues for the morality of scientific research, and I hope you may be able to help us shed some light on this question.

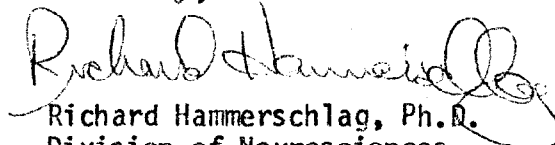
We realize that the Defense Department as well as the individual branches of the Armed Forces fund a large amount of basic research that is not related to military research and development projects. But, we also realize that ARPA funded research (such as the JASON Group and the Tribal Research Center

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at Chiang Mai), has in general focused on providing novel solutions to a broad range of counterinsurgency problems. Also, ARPA Order 424 directed the U.S. Department of Agriculture to evaluate new herbicides for defoliation of tropical and subtropical vegetation. For these reasons, we would like to know whether you might be aware of any discussions within ARPA of "ethnic" chemical weapons. We would also appreciate any information you could provide on the rationale and general research program of ARPA Contract, Order 580.

Any help you may be able to give us, or any other thoughts you may have on this subject would be welcomed.

Sincerely,


Richard Hammerschlag, Ph.D.
Division of Neurosciences

RH/mlc